AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An optoelectronic system comprising:

an optical signal modulator, wherein said optical signal modulator is an electroabsorption modulator (EAM);

an optical input guide and an optical output guide connected to said optical signal modulator, wherein said optical input guide and said optical output guide are a single optical guide;

a reflective optical element in said optical signal modulator, said element disposed to reflect an input light beam incident through said optical input guide into an output light beam through said optical output guide;

an electrical terminal in said optical signal modulator, said electrical terminal configured such that an electrical signal on said electrical terminal is operable to interact with said input light beam, wherein said input light beam is operable to interact to modulate said electrical signal~~, wherein said optical signal modulator is an electroabsorption modulator (EAM), and wherein said optical input guide and said optical output guide are a single optical guide~~; and

an optical circulator in communication with said single optical guide, said circulator adapted to receive said input light beam along a first path, to pass said input light beam to said EAM, and to pass said output light beam along a second path different from said first path.

2. (Canceled)

3. (Original) The system of claim 1 wherein said electrical signal is operable to interact to modulate said output light beam.

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Previously Presented) The system of claim 1 comprising a plurality of EAMs interconnected electrically in a balanced parallel configuration.

8. (Original) The system of claim 1 wherein said electrical terminal is coupled to a voltage source through contacting probe tips.

9. (Original) The system of claim 1 wherein said electrical terminal is coupled to a voltage source through non-contacting probe tips.

10. (Original) The system of claim 1 wherein said electrical terminal is coupled to a voltage source through an impedance matching network.

11. (Original) The system of claim 1 wherein said electrical terminal is coupled to a voltage source through an electromagnetic wave directional coupler.

12. (Original) The system of claim 1 wherein said system is operable to deliver a copy of an electrical signal from a remote electrical device to an electronic measurement instrument over an optical fiber.

13. (Original) The system of claim 1 wherein said system is operable to deliver a modulated signal over an optical fiber for stimulating a remote electrical device.

14. (Original) The system of claim 13 operable concurrently to deliver a copy of an electrical signal over said optical fiber from a remote electrical device to an electronic measurement instrument.

15. (Previously Presented) A method of remote delivery of a modulated signal, said method comprising:

modulating an input light beam with an electrical signal using optical signal modulation;

reflecting said modulated light beam into an output light beam direction different from that of said input light beam; and

concurrently modulating said electrical signal by interacting with said input light beam using electroabsorption modulation.

16. (Canceled)

17. (Original) The method of claim 15 further comprising applying a bias voltage concurrently with said electrical signal.

18. (Original) The method of claim 15 wherein said output light beam and said input light beam propagate in opposite directions through a single optical fiber.

19. (Original) The method of claim 15 wherein said input light beam delivers a replica of an electrical stimulus signal.

20. (Original) The method of claim 15 wherein said output light beam delivers a replica of an electrical response signal from a remote electrical device to an electronic measurement instrument.

21. (Original) The method of claim 20 wherein said input light beam delivers a replica of an electrical stimulus signal to a remote electrical device.

22. (Currently Amended) An optoelectronic system comprising:

an optical intensity modulator;

an optical input guide and an optical output guide connected to said optical intensity modulator, wherein said optical input guide and said optical output guide are a single optical guide;

a reflective optical element in said optical intensity modulator, said element disposed to reflect an input light beam incident through said optical input guide into an output light beam through said optical output guide;

an electrical terminal in said optical intensity modulator, said electrical terminal configured such that an electrical signal on said electrical terminal is operable to interact with said input light beam, wherein said input light beam is operable to interact to modulate said electrical signal; and

an optical circulator in communication with said single optical guide, said circulator adapted to receive said input light beam along a first path, to pass said input light beam to said modulator, to receive said output light beam, and to pass said output light beam along a second path different from said first path.

23. (Canceled)

24. (Previously Presented) The system of claim 22 comprising a plurality of optical intensity modulators interconnected electrically in a differential configuration.

25. (Previously Presented) The method of claim 15 wherein said concurrently modulating said electrical signal comprises:

delivering a modulated signal in said input light beam over an optical fiber; and

stimulating a remote electrical device with said modulated electrical signal.

26. (Previously Presented) The method of claim 15 wherein said modulated light beam is a copy of said electrical signal that modulates said input light beam, and wherein reflecting said modulated light beam comprises:

concurrently delivering said copy of said electrical signal over an optical fiber from a remote electrical device to an electronic measurement instrument.